AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Canceled)

2. (Currently Amended) Method according to claim [[1]] 18, characterised in that the ~~said~~ suspended support effort is calculated on the basis of the non-suspended mass of a ground contact system which includes the tyre-wheel assembly ~~(36)~~ and a wheel support which is connected to a suspension device ~~(30)~~.

3. (Currently Amended) Method according to claim 2, characterised in that the ~~said~~ suspended support effort is calculated on the basis of a resonance frequency and/or a shock-absorption coefficient which are characteristic of a specific mode of the ~~said~~ ground contact system.

4. (Currently Amended) Method according to claim 2 or claim 3, characterised in that the ~~said~~ suspended support effort is calculated on the basis of a rigidity and/or a shock-absorption of the ~~said~~ suspension device ~~(30)~~.

5. (Currently Amended) Method according to ~~any one of claims 1 to 4~~ claim 18 or claim 2, characterised in that the suspended support effort is calculated on the basis of a rigidity and/or a shock-absorption of the ~~said~~ tyre ~~(2)~~.

6. (Currently Amended) Method according to ~~any one of claims 1 to 5~~ claim 18 or claim 2, characterised in that the ~~said~~ suspended support effort is calculated on the basis of a resonance frequency and/or an absorption coefficient which are characteristic of a specific mode of the ~~said~~ tyre ~~(2)~~.

7. (Currently Amended) Method according to claim 6, characterised in that the ~~said~~ suspended support effort is also calculated on the basis of a parameter of coupling between the ~~said~~ specific mode of the tyre and a displacement of the wheel centre.

8. (Currently Amended) Method according to ~~any one of claims 1 to 7~~ claim 18 or claim 2 characterised in that the ~~said~~ suspended force effort ~~(F'^{SS})~~ is calculated in the frequential domain by multiplying the ~~said~~ fixed support effort ~~(F'^{SF})~~ by a passage matrix ~~(H_p)~~.

9. (Currently Amended) Method according to claim 8, characterised in that the ~~said~~ passage matrix ~~(H_p)~~ is diagonal when the ~~said~~ efforts are expressed in a reference corresponding to the main directions (X,Y,Z) of the vehicle ~~(25)~~.

10. (Currently Amended) Method according to claim 9, characterised in that at least one diagonal coefficient of the ~~said~~ passage matrix has development which decreases globally ~~(18, 19)~~ above a certain frequency.

11. (Currently Amended) Method according to claim 9 ~~or claim 10~~, characterised in that at least one diagonal coefficient of the passage matrix has a peak ~~(14, 15)~~ at the level of a resonance frequency of the ground contact system.

12. (Currently Amended) Method according to ~~any one of claims 9 to 11~~ claim 9 characterised in that at least one diagonal coefficient of the ~~said~~ passage matrix has, on a portion of the spectrum, an adjacent minimum and maximum ~~(16, 17)~~ which represent frequential offsetting of a specific mode of the tyre.

13. (Currently Amended) Use of the method according to ~~any one of claims 1 to 12~~ claim 18 or claim 2 in order to determine a transfer function of a vehicle ~~(25)~~ equipped with a ground contact system which includes [[a]] the wheel support connected to a vehicle body ~~(33)~~ by means of a suspension device ~~(30)~~ and a reference tyre-wheel assembly ~~(26)~~ which is fitted on the said wheel support, ~~characterised by~~ comprising the steps ~~consisting~~ of:

measuring a level of noise and/or vibration ~~(40)~~ inside the vehicle when the tyre of the ~~said~~ reference

tyre-wheel assembly is excited in specific rolling conditions;

implementing ~~(31)~~ the method according to ~~any one of claims 1 to 12~~ claim 18 or claim 2 with the ~~said~~ reference tyre-wheel assembly ~~(26)~~ excited in the ~~said~~ rolling conditions which are determined such as to calculate the ~~said~~ suspended support effort ~~(F^{SS})~~ as effort transmitted between the ~~said~~ reference tyre-wheel assembly and the ~~said~~ wheel support of the ground contact system;

determining ~~the said~~ a transfer function ~~(34)~~ in ~~the~~ a frequential domain ~~(32)~~ between the ~~said~~ level of noise and/or vibration ~~(40)~~ measured and the ~~said~~ effort calculated ~~(F^{SS})~~.

14. (Currently Amended) Use of the method according to ~~any one of claims 1 to 12~~ claim 18 or claim 2 in order to predict the comfort performance of a vehicle ~~(25)~~ to be equipped with a ground contact system which includes a wheel support connected to a vehicle body ~~by means of a suspension device (30)~~ and a prototype tyre-wheel assembly ~~(36)~~ which is fitted on the ~~said~~ wheel support, ~~characterised by~~ comprising the steps ~~consisting~~ of:

implementing ~~(37)~~ the method according to ~~any one of claims 1 to 12~~ claim 18 or claim 2 with the ~~said~~ prototype tyre-wheel assembly ~~(36)~~ in order to calculate the ~~said~~ suspended support effort ~~(F^{SS})~~ as effort transmitted between the ~~said~~ prototype tyre-wheel assembly and the ~~said~~ wheel support of the ground contact system; and

multiplying ~~(38)~~ the ~~said~~ effort calculated by a transfer function ~~(34)~~ of the ~~said~~ vehicle in the frequential domain in order to obtain a level of noise and/or vibration ~~(41)~~ foreseen in the interior of the vehicle.

15. (Currently Amended) Use according to claim 14, characterised in that the ~~said~~ transfer function ~~(34)~~ is determined by use according to claim 13.

16. (Currently Amended) Data processing device, ~~characterised in that it comprises~~ comprising an interface to enter a fixed support effort signal ~~(F^{SF},F'^{SF})~~ representing ~~an~~ a measured effort transmitted between a wheel support ~~(27) which is fixed in at least one direction relative to an excitation means (28, 29)~~ and a vehicle wheel ~~(26, 36)~~ which is ~~fitted pivotably~~ mounted for rotation on the ~~said~~ wheel support and is provided with a tyre ~~which is~~ pressed against ~~the said~~ excitation means, the wheel support being fixed such that the only degree of freedom of the wheel is about its own axis, and calculation means ~~which are~~ programmed to implement a functional suspension model which, on the basis of the ~~said~~ fixed support effort signal, ~~can calculate~~ calculates a suspended support effort signal ~~(F^{SS},F'^{SS})~~ representing an effort which would be transmitted between the ~~said~~ wheel ~~(26, 36)~~ and a wheel support ~~(30)~~ having a degree of freedom of suspension in at least one said direction relative to the ~~said~~ excitation means.

17. (Currently Amended) Computer programme comprising instruction codes which can be read or stored on a support and can be executed by a computer in order to implement a functional suspension model which, on the basis of a fixed support effort signal ~~(F^{SF},F'^{SF})~~ representing an effort transmitted between a fixed wheel support ~~(27) in at least one direction relative to an excitation means (28, 29)~~ and a vehicle wheel ~~(26, 36)~~ which is ~~fitted pivotably~~ mounted rotatably on the ~~said~~ wheel support such that the only degree of freedom of the wheel is rotation about its own axis, and is provided with a tyre ~~which is~~ pressed against the ~~said~~ excitation means, ~~can calculate~~ calculates a suspended support effort signal ~~(F^{SS},F'^{SS})~~ representing an effort which would be transmitted between the ~~said~~ wheel ~~(26, 36)~~

and a wheel support ~~(30)~~ having a degree of freedom of suspension in at least one ~~said~~ direction X, Y, Z relative to the ~~said~~ excitation means.

18. (New) Method for determining an effort transmitted between a vehicle wheel and a wheel support, the method comprising the steps of:

mounting the wheel for rotation on a wheel support comprising a dynamic hub rigidly connected on a fixed frame such that the only degree of freedom of the wheel is rotation about the hub axis, the wheel being provided with a tyre forming therewith a tyre-wheel assembly;

pressing the tyre against an excitation means;

measuring a fixed support effort which is transmitted between the wheel and the wheel support when the tyre is excited by the excitation means, and

calculating, on the basis of the measured fixed support effort, a suspended support effort which would be transmitted between the wheel and a wheel support having a degree of freedom of suspension in at least one direction (X, Y, Z) in relation to the excitation means.